

(19)



Europäisches Patentamt

European Patent Office

Office européen des brevets



(11)

EP 0 822 603 A3

(12)

EUROPEAN PATENT APPLICATION

(88) Date of publication A3:
08.03.2000 Bulletin 2000/10

(51) Int. Cl.⁷: H01L 51/20, H05B 33/26

(43) Date of publication A2:
04.02.1998 Bulletin 1998/06

(21) Application number: 97202245.3

(22) Date of filing: 17.07.1997

Best Available Copy

(84) Designated Contracting States:
AT BE CH DE DK ES FI FR GB GR IE IT LI LU MC
NL PT SE
Designated Extension States:
AL LT LV RO SI

(30) Priority: 29.07.1996 US 681680

(71) Applicant: EASTMAN KODAK COMPANY
Rochester, New York 14650 (US)

(72) Inventors:
• Hung, Liang-Sun,
c/o Eastman Kodak Company
Rochester, New York 14650-2201 (US)
• Tang, Ching W.,
c/o Eastman Kodak Company
Rochester, New York 14650-2201 (US)

(74) Representative:
Pohle, Reinhard, Dipl.-Phys. et al
c/o KODAK AKTIENGESELLSCHAFT
Patentabteilung
Hedelfinger Str. 54-60
70327 Stuttgart (DE)

(54) **Bilayer electron-injecting electrode for use in an electroluminescent device**

(57) An electroluminescent device comprising an anode, an electroluminescent layer, and a cathode. The cathode includes a fluoride layer contacting the electroluminescent layer, a conductive layer contacting the fluoride layer, and the thickness of the fluoride layer being selected so that the bilayer acts as an electron injecting contact, the bilayer providing stability against atmospheric corrosion.

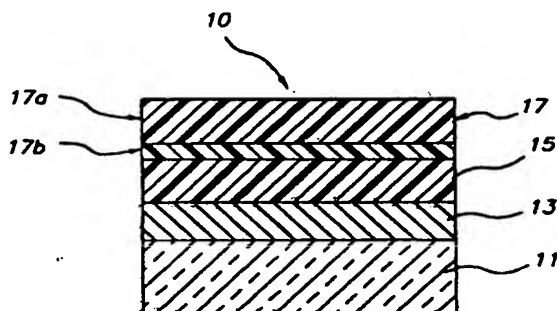


FIG. 1

EP 0 822 603 A3

Best Available Copy

European
Office

EUROPEAN SEARCH REPORT

Application Number

EP 97 20 2245

DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int.Cl.6)
A	TOKITO S ET AL: "Organic EL devices fabricated using a diamine doped MgF2 thin film as a hole-transporting layer" APPLIED PHYSICS LETTERS, 6 FEB. 1995, USA, vol. 66, no. 6, pages 673-675, XP000491176 ISSN: 0003-6951 * the whole document *	1,8	H01L51/20 H05B33/26
P,X	HUNG L ET AL: "Enhanced electron injection in organic electroluminescence devices using an Al/LiF electrode" APPLIED PHYSICS LETTERS, 13 JAN. 1997, vol. 70, no. 2, page 152-154 XP000680570 ISSN: 0003-6951 * the whole document *	1-5,7-10	
E	EP 0 869 701 A (MITSUBISHI CHEM CORP) 7 October 1998 (1998-10-07) * column 9, line 43 - column 13, line 10 *	1-4,6,7	
			TECHNICAL FIELDS SEARCHED (Int.Cl.6)
			H01L
The present search report has been drawn up for all claims			
Place of search THE HAGUE		Date of completion of the search 18 January 2000	Examiner van der Linden, J.E.
CATEGORY OF CITED DOCUMENTS X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document		T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons & : member of the same patent family, corresponding document	

EPO FORM 1503 03 82 (P4/C31)

ANNEX TO THE EUROPEAN SEARCH REPORT
ON EUROPEAN PATENT APPLICATION NO.

EP 97 20 2245

This annex lists the patent family members relating to the patent documents cited in the above-mentioned European search report. The members are as contained in the European Patent Office EDP file on
The European Patent Office is in no way liable for these particulars which are merely given for the purpose of information.

18-01-2000

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
EP 0869701 A	07-10-1998	JP 11026167 A	29-01-1999

EPO FORM P0459

For more details about this annex : see Official Journal of the European Patent Office, No. 12/82